INDEX TO
EXPERIMENTAL MECHANICS
VOLUME 7, 1967

SUBJECT INDEX

Aluminum, Pure, Radiation Effects on Creep Rupture and Fatigue Strength of—S. Y. ZAMRIK and L. W. HU, 193–201 (May).
Analog, Electrical, A Solution for the Lateral Stability of Beams Using an—CAMPBELL MASSEY, 124–126 (Mar.).
Analysis and Synthesis of a Moiré Photo-Optical System—DONALD L. G. STURGEON, 346–352 (Aug.).
Analysis of Axisymmetric Shells Using Photoelastic Foundation Models—H. BECKER and C. TANG, 494–496 (Nov.).
Analytical Determination of Speed Factor in Gear Designs, An—S. SHIMAMURA and T. NOGUCHI, 218–223 (May).
Applications of Experimental Mechanics to Plant Fabricating-equipment Problems—R. S. BARKER and R. F. YOUNG, 19A–25A (Dec.).
Application of the Moiré Method for Use with Cylindrical Surfaces—C. OSGERBY, 313–320 (July).
Auto-aerodynamic Drag-force Analysis—P. B. HERTZ and P. R. UKRAINETZ, 19A–22A (Feb.).
Axisymmetric Shells Using Photoelastic Foundation Models, Analysis of—H. BECKER and C. TANG, 494–496 (Nov.).

Bending Behavior of a Rectangular Plate with a Bitrapezoidal Cross Section—D. G. BELLOW and M. G. FAULKNER, 392–397 (Sept.).
Biaxial Testing Machine, A Dynamic—V. S. LINDHOLM and L. M. YEAKLEY, 1–7 (Jan.).
Blade-vibration, High-speed-turbocharger, Measurement—C. N. FANGMAN, V. A. ZASTROW and J. E. BOBECK, 19A–21A (Jan.).
Buckling, Experimental, of Internal, Integral Ring-stiffened Cylinders—W. R. MIDGLEY and A. E. JOHNSON, 145–153 (Apr.).
Buckling of Complete Spherical Shells, Experimental Studies of the—R. L. CARLSON, R. L. SENDELBECK and N. J. HOFF, 281–288 (July).
Buckling of Unstiffened Conical Shells under Combined Loading—A. BERKOVITS, J. SINGER and T. WELLER, 458–467 (Nov.).
Buckling, Snap-through, Measurements of the Displacements of Spherical Caps during—JIRO ADACHI, 23–27 (Jan.).

Chebyshev Polynomial Curve-fitting Technique for Strain-gage Applications—J. W. MCKINLEY and T. ISHIHARA, 276–278 (June).
Comparison of Stress-concentration Factors in Hyperbolic and U-shaped Grooves, A—P. D. FLYNN and A. A. ROLL, 272–275 (June).
Composites, Laminated Fiber-reinforced, Experimental Determination of Shear Modulus—JAMES A. WHITNEY, 447–448 (Oct.).
Compressor-blade Vibration, Detection and Study of—RUDOLPH HOHENBERG, 19A–24A (June).
Connection, Preloaded, Shock Response of a—V. H. NEUBERT and D. F. POETH, 75–81 (Feb.).
Contact Problem in Solid-ink Printing, The—H. D. CONWAY and R. R. SCHAFFER, 15–21 (Jan.).
Corneal Studies by Photoelasticity—D. POST and J. E. GURLAND, 419–425 (Oct.).
Couple-stress Effects, Thin-plate Analysis and Experimental Evaluation of—R. W. ELLIS and C. W. SMITH, 381–385 (Sept.).
Crack Growth in Glass, On the Dynamics of—DENNIS RADER, 160–167 (Apr.).
Criteria of Design for Progressive Torsion-bar Springs—HERBERT K. SACHS, 105–109 (Mar.).
Cross Sensitivity on Evaluated Strain-gage Measurements, A Simple Estimate for the Effect of—M. L. MEYER, 476–480 (Nov.).
Cylinders, Internal Integral Ring-Stiffened, Experimental Buckling of—W. R. MIDGLEY and A. E. JOHNSON, 145–153 (Apr.).

Data Analysis in Dynamic Photoelasticity—JAMES W. DALLY, 332–338 (Aug.).
Data Reduction, Analog, Two Photoviscoelasticity Experiments Using—CHARLES W. FOWLKES, 41–46 (Jan.).
Definitions of Strain and Their Use in Large-strain Analysis, On the—V. J. PARKS and A. J. DURELLI, 279–280 (June).
Design and Instrumentation of Glass-filament-wound Interlaminar-shear Specimen—ROBERT G. JACOBS, 176–182 (Apr.).
Detection and Study of Compressor-blade Vibration—RUDOLPH HOHENBERG, 19A–24A (June).
Determination of Natural Frequencies, Of Vibration in a Sandwich Plate—M. E. RAVILLE and C. E. S. UENG, 490–493 (Nov.).
Determination of the Complex Shear Modulus of a Filled Elastomer from a Vibrating Sandwich Beam—T. NICHOLAS and R. A. HELLER, 110–116 (Mar.).
Determining the Resonance Frequencies of Forced Vibrations of Turbogenerators with Foundations—LADISLAV PUST, 265–271 (June).
Digital-filtering Techniques Applied to the Interpolation of Moiré-fringe Data—C. A. SCIAMMARELLA and D. L. STURGEON, 468–475 (Nov.).
Direct Measurement of Very Large Strain at High Strain Rates, On the—JAMES F. BELL, 8–14 (Jan.).
Displacement Field Around a Circular Hole in a Viscoelastic Plate—M. H. WACHS and F. ERDOGAN, 248–255 (June).
Displacements of Spherical Caps during Snap-through Buckling, Measurements of the—JIRO ADACHI, 23–27 (Jan.).
Drag-force, Auto-aerodynamic, Analysis—P. B. HERTZ and P. R. UKRAINETZ, 19A–22A (Feb.).
Dual-observation Method for Determining Photoelastic Parameters in Scattered Light, A—Y. F. CHENG, 140–144 (Mar.).
Dynamic and Static-stress Distributions, on Some Differences between—K. KAWATA and S. HASHIMOTO, 91–96 (Feb.).
Dynamic Biaxial Testing Machine, A—U. W. LINDHOLM and L. M. YEAKLEY, 1–7 (Jan.).
Dynamics of Crack Growth in Glass, On the—DENNIS RADER, 160–167 (Apr.).
Dynamic-stress Measurement on the Crankshaft of an Operating Diesel Engine—D. KARNOPP and R. B. MELTON, JR., 359–360 (Aug.).

Edge Impact of an Elastic-Plastic Semi-infinite Plate—L. R. HETTCHE and T. AU, 302–308 (July).
Effect of photographic-film nonlinearities on the Processing of Moiré-fringe Data—C. A. SCIAMMARELLA and C. W. DODDINGTON, 398–402 (Sept.).
Effects of Mean Pressure on the Behavior of a Filled Elastomer—R. D. STOLL, A. M. FREUDENTHAL and R. A. HELLER, 339–345 (Aug.).
Elastomer, Filled, Effects of Mean Pressure on the Behavior of a—R. D. STOLL, A. M. FREUDENTHAL and R. A. HELLER, 339–345 (Aug.).
Electric-analog Studies of Impact Dampers—SAMI F. MASRI, 49–55 (Feb.).
Experimental Analysis of Models and Structures, Some Applications of—JAN BALÁS, 127–139 (Mar.).
Experimental Analysis of Plates Using the Method of Model Curing—JOZEF BEDNÁR, 85–90 (Feb.).
Experimental and Theoretical Determination of Frequencies of Elastic Toroids—J. W. LINCOLN and E. VOLTERRA, 211–217 (May).
Experimental and Theoretical Studies of Explosive-induced Large Dynamic and Permanent Deformations of Simple Structures—E. A. WITMER, E. N. CLARK and H. A. BALMER, 56–66 (Feb.).
Experimental Buckling of Internal Integral Ring-stiffened Cylinders—W. R. MIDGLEY and A. E. JOHNSON, 145–153 (Apr.).
Experimental Determination of Shear Modulus of Laminated Fiber-reinforced Composites—JAMES M. WHITNEY, 447–448 (Oct.).
Experimental Mechanics, Applications of, to Plant Fabricating-equipment Problems—R. S. BARKER and R. F. YOUNG, 19A–25A (Dec.).
Experimental Mechanics at Velocity Extremes—Very High Strain Rates—W. W. WOOD, 441–446 (Oct.).
Experimental Stress Analysis of Loaded Boundaries in Two-dimensional Second-boundary Value Problems—A. J. DURELLI and V. J. PARKS, 381–385 (Sept.).
Experimental Studies of the Buckling of Complete Spherical Shells—R. L. CARLSON, R. L. SENDELBECK and N. J. HOFF, 281–288 (July).
Experimental Study of Thin Cylindrical Shells under Local Axial Loadings—M. BENICEK, 506–512 (Dec.).
Explosions, The Moiré Method for the Study of—P. S. THEOCARIS, N. DAVIDS, W. GILLICH and H. H. CALVIT, 202–210 (May).
Explosive-induced Large Dynamic and Permanent Deformations of Simple Structures, Experimental and Theoretical Studies of—E. A. WITMER, E. N. CLARK and H. A. BALMER, 56–66 (Feb.).
Extensometer, Laser, for Measuring Strain at Incandescent Temperatures, A—A. J. KARNIE and E. E. DAY, 485–489 (Nov.).

Fatigue Process, Wet–Dry, Invariability, Hesitation or Restoration of Damage in—HIDEO KITAGAWA, 28–35 (Jan.).
Finite Rotation and Strain Measurement Using the Moiré Technique—H. J. DUFFEY and G. K. MESMER, 537–540 (Dec.).
Flat vs. Stacked Rosettes—ROBERT W. TROKE, 24A–28A (May).
Fringe Interpolation in Moiré Patterns, Techniques of—C. A. SCIAMMARELLA, 19A–26A (Nov.).

Gear Designs, An Analytical Determination of Speed Factor in—T. SHIMAMURA and Y. NOGUCHI, 218–223 (May).
Generic Nature of the Absolute-retardation Method of Photoelasticity, The—DANIEL POST, 233–241 (June).
Grain-boundary Model for Polycrystals and Sintered Carbides, A—R. H. HAWLEY and W. R. POWELL, 242–247 (June).
Grid-shift Technique for Moiré Analysis of Strain in Solid Propellants, The—R. C. SAMPSON and D. M. CAMPBELL, 449–457 (Nov.).
Gross Hydrostatic-pressure Effect as Related to Foil and Wire Strain Gages, The—R. VINCENT MILLIGAN, 67–73 (Feb.).

High-speed-turbocharger Blade-vibration Measurement—C. N. FANGMAN, V. A. ZASTROW and J. E. BOBECK, 19A–21A (Jan.).
High-temperature Strain Gages for Use in Sodium Environments—R. RASTOGI, K. D. IVES and W. A. CRAWFORD, 525–531 (Dec.).

Impact Dampers, Electric Analog of—SAMI F. MASRI, 49–55 (Feb.).
Incremental Versus Total-strain Theories for Proportionate and Nonproportionate Loading of Torsion–Tension Members—M. R. SHAMMAMY and O. M. SIDEBOTTOM, 497–505 (Dec.).
Interlaminar-shear specimen, Glass-filament-wound, Design and Instrumentation of—ROBERT G. JACOBS, 176–182 (Apr.).
Invariability, Hesitation or Restoration of Damage in Wet–Dry Fatigue Process—HIDEO KITAGAWA, 28–35 (Jan.).

Laser Extensometer for Measuring Strain at Incandescent Temperatures, A—A. J. KARNIE and E. E. DAY, 485–489 (Nov.).

Machinery, Mathematical Model Analysis for the Dynamic Design of—E. G. FISCHER and A. A. PARR, 27A–34A (Oct.).
Magnesium Plate, Fracturing, Transient Analysis in a—A. S. KOBAYASHI, D. O. HARRIS and W. L. ENGSTROM, 434–440 (Oct.).
Mathematical Model Analysis for the Dynamic Design of Machinery—E. G. FISCHER and A. A. PARR, 27A–34A (Oct.).
Measurements of Stress-concentration Factors in the External Fillets of a Cylindrical Pressure Vessel—J. H. HEIFETZ and I. BERMAN, 518–524 (Dec.).
Mechanical and Optical Characterization of a Solithane 113 Composition, The—R. J. ARNEX, C. W. FERGUSON and M. L. WILLIAMS, 183–188 (Apr.).
Model Analysis, Mathematical, for the Dynamic Design of Machinery—E. G. FISCHER and A. A. PARR, 27A–34A (Oct.).
Model Curing, Experimental Analysis of Plates Using the Method of—JOZEF BEDNÁR, 85–90 (Feb.).
Model, Fail-safe Structural Random-load Fatigue Tests—R. A. HELLER and R. C. DONAT, 409–418 (Oct.).
Models and Structures, Some Applications of Experimental Analysis of—JÄN BALÁS, 127–139 (Mar.).
Moiré Analysis of Strain in Solid Propellants, the Grid-shift Technique for—R. C. SAMPSON and D. M. CAMPBELL, 449–457 (Nov.).
Moiré-fringe Data, Digital-filtering Techniques Applied to the Interpolation of—C. A. SCIAMMARELLA and D. L. STURGEON, 468–475 (Nov.).
Moiré-fringe Data, Effect of Photographic-film Nonlinearities on the Processing of—C. A. SCIAMMARELLA and C. W. DODDINGTON, 398–402 (Sept.).
Moiré Fringes as Parametric Curves—A. J. DURELLI and V. J. PARKS, 97–104 (Mar.).
Moiré Fringes, Sharpening and Multiplication of—DANIEL POST, 154–159 (Apr.).
Moiré Method for Measuring Plate Curvature, A—A. J. DURELLI and V. J. PARKS, 201 (May).
Moiré Method for Measuring Plate Curvature, A—ULRICH HEISE, 47–48 (Jan.).
Moiré Method for the Study of Explosions, The—P. S. THEOCARIS, N. DAVIDS, W. GILLICH and H. H. CALVIT, 202–210 (May).
Moiré Method for Use with Cylindrical Surfaces, Application of the—C. OSGERBY, 313–320 (July).
Moiré Method of Strain Analysis, Manual—Chapter VI—WILLIAM F. RILEY, 19A–24A (Feb.).
Moiré Photo-Optical System, Analysis and Synthesis of a—DONALD L. G. STURGEON, 346–352 (Aug.).
Moiré Study of Anticlastic Deformations of Strips with Tapered Edges—W. E. NICKOLA, H. D. CONWAY and K. A. FARNHAM, 168–175 (Apr.).
Moiré Technique, Finite Rotation and Strain Measurement Using the—H. J. DUFFEY and G. K. MESMER, 537–540 (Dec.).
Moiré Topography of Curved Surfaces—PERICLES S. THEOCARIS, 289–296 (July).
Multilayer-reflection Technique for Three-dimensional Photoelastic Studies of Perforated Plates in Bending. A—R. PAPIRNO and H. BECKER, 361–371 (Sept.).

New Methods in Photoelasticity—ANDRE J. ROBERT, 224–232 (May).
Notch, Sharp, Plastic-strain Distribution at the Root of a—R. TAGGART, D. H. POLONIS and L. A. JAMES, 386–391 (Sept.).
Notches, Sharp, Stress Concentrations Due to—H. LIEBOWITZ, H. VANDERVELDT and R. J. SANFORD, 513–517 (Dec.).
Notches, Superposed, Stress-concentration Factors for—VITTORIO VICENTINI, 117–123 (Mar.).
Nullification of Stress-concentration Factors by Stress Equalization—F. I. BARATTA and J. I. BLUHM, 35A–41A (Oct.).

On the Accuracy of Two-dimensional Photoelastic Experiments in Which Uniform Edge Loading is Obtained by the Inflatable-tubing Technique—THOMAS SLOT, 189–192 (Apr.).
Parametric Curves, Moiré Fringes as—A. J. DURELLI and V. J. PARKS, 97–104 (Mar.).
Photoelastic Experiments, Two-dimensional, in which Uniform Edge Loading is Obtained by the Inflatable-tubing Technique, On the Accuracy of—THOMAS SLOT, 189–192 (Apr.).
Photoelastic Parameters in Scattered Light, A Dual-observation Method for Determining—Y. F. CHENG, 140–144 (Mar.).
Photoelasticity, Corneal Studies by—D. POST and J. E. GURLAND, 419–425 (Oct.).
Photoelasticity, Dynamic, Data Analysis in—JAMES W. DALLY, 332–338 (Aug.).
Photoelasticity, New Methods in—ANDRE J. ROBERT, 224–232 (May).
Photoelasticity, Plane, Photographic, Display of Stress Direction in—DAVID G. HAVARD, 407–408 (Sept.).
Photoelastic Studies, Three-dimensional, of Perforated Plates in Bending, A Multilayer-reflection Technique for—R. PAPIRNO and H. BECKER, 361–371 (Sept.).
Photoelasticity, The Generic Nature of the Absolute-retardation Method of—DANIEL POST, 233–241 (June).
Photographic Display of Stress Direction in Plane Photoelasticity—DAVID G. HAVARD, 407–408 (Sept.).
Photographic-film Nonlinearities on the Processing of Moiré-fringe Data, Effect of—C. A. SCIAMMARELLA and C. W. DODDINGTON, 398–402 (Sept.).
Photoviscoelasticity Experiments Using Analog Data Reduction, Two—CHARLESS W. FOWLKES, 41–46 (Jan.).
Plastic-strain Distribution at the Root of a Sharp Notch—R. TAGGART, D. H. POLONIS and L. A. JAMES, 386–391 (Sept.).
Plate Curvature, A Moiré Method for Measuring—ULRICH HEISE, 47–48 (Jan.).
Plate Curvature, A Moiré Method for Measuring—Discussion by A. J. DURELLI and V. J. PARKS, 201 (May).
Plates, Rectangular, with Cambered Bitrapezoidal Cross Sections, Stability of—D. G. BELLOW and A. SEMENIUK, 309–312 (July).
Propagation of a Stress Pulse in a Viscoelastic Rod—DOUGLAS M. NORRIS, JR., 297–301 (July).
Properties of Rocks Tested in One-dimensional Compression—K. L. DEVRIES, J. L. SMITH, W. C. STACEY and W. S. BROWN, 426–433 (Oct.).

Radiation Effects on Creep Rupture and Fatigue Strength of Pure Aluminum—S. Y. ZAMRIK and L. W. HU, 193–201 (May).
Random-load Fatigue Tests on a Fail-safe Structural Model—R. A. HELLER and R. C. DONAT, 409–418 (Oct.).
Resonance Frequencies of Forced Vibrations of Turbogenerators with Foundations, Determining the—LADISLAV PUST, 265–271 (June).
Rocks Tested in One-dimensional Compression, Properties of—K. L. DEVRIES, J. L. SMITH, W. C. STACEY and W. S. BROWN, 426–433 (Oct.).
Rosettes, Flat vs. Stacked—ROBERT W. TROKE, 24A–28A (May).

Sandwich Beam, Vibrating, Determination of the Complex Shear Modulus of a Filled Elastomer from a—T. NICHOLAS and R. A. HELLER, 110–116 (Mar.).
Sandwich Plate, Determination of Natural Frequencies of Vibration of a—M. E. RAVILLE and C. E. S. UENG, 490–493 (Nov.).
Sharpening and Multiplication of Moiré Fringes—DANIEL POST, 154–159 (Apr.).
Shell Analyses, Experimental, Stress-fit Applications to—F. J. WITT and R. W. MAXWELL, 36–40 (Jan.).
Shells, Thin Cylindrical, under Local Axial Loadings, Experimental Studies of—M. BENICEK, 506–512 (Dec.).
Shells, Unstiffened Conical, under Combined Loading, Buckling of—A. BERKOVITS, J. SINGER and T. WELLER, 458–467 (Nov.).
Shock Response of a Preloaded Connection—V. H. NEUBERT and D. F. POETH, 75–81 (Feb.).
Shock-wave Interaction with Air-supported Structures—W. ZAGIEBOYLO, 532–536 (Dec.).
Similarity in Thermoelasticity—J. D. HOVANESIAN and H. C. KOWALSKI, 82–84 (Feb.).
Simple Estimate for the Effect of Cross Sensitivity on Evaluated Strain-gage Measurements, A—M. L. MEYER, 476–480 (Nov.).
Small-mechanism Stress Analysis—ROBERT L. LYON, 19A–23A (May).
Solithane 113 Composition, the Mechanical and Optical Characterization of a—R. J. ARNEX, C. W. FERGUSON and M. L. WILLIAMS, 83–188 (Apr.).
Solution for the Lateral Stability of Beams Using an Electrical Analog, A—CAMPBELL MASSEY, 124–126 (Mar.).
Some Applications of Experimental Analysis of Models and Structures—JÁN BÁLÁS, 127–139 (Mar.).
Some Differences between Dynamic and Static-stress Distributions, On—K. KAWATA and S. HASHIMOTO, 91–96 (Feb.).
Spectral Analysis of Pump-cavitation Noise—F. O. RATHBUN, JR., W. B. GILES, D. E. WOOD and C. MILLER, 19A–29A (Sept.).
Springs, Progressive Torsion-bar, Criteria of Design for—HERBERT K. SACHS, 105–109 (Mar.).
Square Slabs, with Different Edge Geometries, when Bonded on One Face to a Rigid Plate and Shrunk, Stresses in—A. J. DURELLI, V. J. PARKS and C. J. DEL RIO, 481–484 (Nov.).
Stability, Lateral, of Beams Using an Electrical Analog, A Solution for the—CAMPBELL MASSEY, 124–126 (Mar.).
Stability of Rectangular Plates with Cambered Bitrapezoidal Cross Sections—D. G. BELLOW and A. SEMENIUK, 309–312 (July).
Statistical Treatment of Experimental Data, Manual—Chapter VII—C. C. PERRY, 19A–25A (Apr.).
Strain Analysis, Moiré Method of—WILLIAM F. RILEY, 19A–24A (Feb.).
Strain-gage Applications, Chebyshev Polynomial Curve-fitting Technique for—J. W. MCKINLEY and T. ISHIHARA, 276–278 (June).
Strain-gage Measurements, Evaluated, A Simple Estimate for the Effect of Cross Sensitivity on—M. L. MEYER, 476–480 (Nov.).
Strain Gages, Foil and Wire, the Gross Hydrostatic-pressure Effect as Related to—R. VINCENT MILLIGAN, 67–73 (Feb.).
Strain Gages, High-temperature, for Use in Sodium Environments—R. RASTOGI, K. D. IVES and W. A. CRAWFORD, 525–531 (Dec.).
Strain Gages, Weldable, Two Types of High-temperature: Ni-Cr Half-bridge Filaments and Pt-W Half-bridge Filaments—JOSEPH P. GIBBS, 19A–26A (Aug.).
Strain Measurements in Tubes During Rapid Transient Heating—J. FRISCH and J. E. MORRIS, 353–358 (Aug.).
Strain, On the Definitions of, and Their Use in Large-strain Analysis—V. J. PARKS and A. J. DURELLI, 279–280 (June).
Strain Rates, High, On the Direct Measurement of Very Large Strain at—JAMES F. BELL, 8–14 (Jan.).
Stress Analysis, Small-mechanism—ROBERT L. LYON, 19A–23A (May).
Stress-concentration Factors by Stress Equalization, Nullification of—F. I. BARATTA and J. I. BLUHM, 35A–41A (Oct.).
Stress-concentration Factors for Superposed Notches—VITTORIO VICENTINI, 117–123 (Mar.).
Stress-concentration Factors in Hyperbolic and U-shaped Grooves, A Comparison of—P. D. FLYNN and A. A. ROLL, 272–275 (June).
Stress-concentration Factors, Measurements of, in the External Fillets of a Cylindrical Pressure Vessel—J. H. HEIFETZ and I. BERMAN, 518–524 (Dec.).
Stress Concentrations Due to Sharp Notches—H. LIEBOWITZ, H. VANDERVELDT and R. J. SANFORD, 513–517 (Dec.).
Stresses in Square Slabs, with Different Edge Geometries, when Bonded on One Face to a Rigid Plate and Shrunk—A. J. DURELLI, V. J. PARKS and C. J. DEL RIO, 481–484 (Nov.).
Stress-fit Applications to Experimental Shell Analyses—F. J. WITT and R. W. MAXWELL, 36–40 (Jan.).
Stress Pulse in a Viscoelastic Rod, Propagation of a—DOUGLAS M. NORRIS, JR., 297–301 (July).
Stress-wave Propagation in Truncated Cones Against a "Rigid" Wall—NAM P. SUH, 541–544 (Dec.).
Structures, Air-supported, Shock-wave Interaction with—W. ZAGIEBOYLO, 532–536 (Dec.).

Techniques for Testing Structures Permitted to Sway—E. YARIMCI, J. A. YURA and L. W. LU, 321–331 (Aug.).
Techniques of Fringe Interpolation in Moiré Patterns—C. A. SCIAMMARELLA, 19A–26A (Nov.).
Thermal-fatigue Tests of Restrained Combustor-cooling Tubes—L. R. AVERY, G. S CARAYANIS and G. L. MICHKY, 256–264 (June).
Thermoelasticity, Similarity in–J. D. HOVANESIAN and H. C. KOWALSKI, 82–84 (Feb.).
Thickness-variation Analog for Nonhomogeneous Plane-elasticity Problems—J. R. KINZEY and F. J. MCCORMICK, 403–406 (Sept.).
Thin-plate Analysis and Experimental Evaluation of Couple-stress Effects—R. W. ELLIS and C. W. SMITH 381–385 (Sept.).
Toroids, Elastic, Experimental and Theoretical Determination of Frequencies of—J. W. LINCOLN and E. VOLTERRA, 211–217 (May).
Transfer-grid Method, a Practical Moiré Stress-analysis Tool—FELIX ZANDMAN, 19A-22A (July).
Transient Analysis in a Fracturing Magnesium Plate—A. S. KOBAYASHI, D. O. HARRIS and W. L. ENGSTROM, 434–440 (Oct.).
Tubes, Strain Measurements in, During Rapid Transient Heating—J. FRISCH and J. E. MORRIS, 353–358 (Aug.).
Two Types of High-temperature Weldable Strain Gages: Ni-Cr Half-bridge Filaments and Pt-W Half-bridge Filaments—JOSEPH P. GIBBS, 19A–26A (Aug.).

Viscoelastic Plate, Displacement Field Around a Circular Hole in a—M. H. WACHS and F. ERDOGAN, 248–255 (June).

AUTHOR INDEX

ADACHI, JIRO—Measurements of the Displacements of Spherical Caps during Snap-through Buckling, 23–27 (Jan.).
ARNEZ, R. J.—The Mechanical and Optical Characterization of a Solithane 113 Composition, 183–188 (Apr.).
AU, T.—Edge Impact of an Elastic-Plastic Semi-infinite Plate, 302–308 (July).
AVERY, L. R.—Thermal-fatigue Tests of Restrained Combustor-cooling Tubes, 256–264 (June).

BALÁS, JÁN—Some Applications of Experimental Analysis of Models and Structures, 127–139 (Mar.).
BALMER, H. A.—Experimental and Theoretical Studies of Explosive-induced Large Dynamic and Permanent Deformations of Simple Structures, 56–66 (Feb.).
BARATTA, F. I.—Nullification of Stress-concentration Factors by Stress Equalization, 35A–41A (Oct.).
BARKER, R. S.—Applications of Experimental Mechanics to Plant Fabricating-equipment Problems, 19A–25A (Dec.).
BECKER, H.—Analysis of Axisymmetric Shells Using Photoelastic Foundation Models, 494–496 (Nov.).
BECKER, H.—A Multilayer-reflection Technique for Three-dimensional Photoelastic Studies of Perforated Plates in Bending, 361–371 (Sept.).
BEDNÁR, JOZEF—Experimental Analysis of Plates Using the Method of Model Curing, 85–90 (Feb.).
BELL, JAMES F.—On the Direct Measurement of Very Large Strain at High Strain Rates, 8–14 (Jan.).
BELLOW, D. G.—Bending Behavior of a Rectangular Plate with a Bitrapezoidal Cross Section, 392–397 (Sept.).
BELLOW, D. G.—Stability of Rectangular Plates with Cambered Bitrapezoidal Cross Sections, 309–312 (July).
BENICEK, M.—Experimental Study of Thin Cylindrical Snells under Local Axial Loadings, 506–512 (Dec.).
BERKOVITS, A.—Buckling of Unstiffened Conical Shells under Combined Loading, 458–467 (Nov.).
BERMAN, I.—Measurements of Stress-concentration Factors in the External Fillets of a Cylindrical Pressure Vessel, 518–524 (Dec.).
BLUHM, J. I.—Nullification of Stress-concentration Factors by Stress Equalization, 35A–41A (Oct.).
BOBECK, J. E.—High-speed-turbocharger Blade-vibration Measurement, 19A–21A (Jan.).
BROWN, W. S.—Properties of Rocks Tested in One-dimensional Compression, 426–433 (Oct.).

CALVIT, H. H.—The Moiré Method for the Study of Explosions, 202–210 (May).
CAMPBELL, D. M.—The Grid-shift Technique for Moiré Analysis of Strain in Solid Propellants, 449–457 (Nov.).
CARAYANIS, G. S.—Thermal-fatigue Tests of Restrained Combustor-cooling Tubes, 256–264 (June).
CARLSON, R. L.—Experimental Studies of the Buckling of Complete Spherical Shells, 281–288 (July).
CHENG, Y. F.—A Dual-observation Method for Determining Photoelastic Parameters in Scattered Light, 140–144 (Mar.).
CLARK, E. N.—Experimental and Theoretical Studies of Explosive-induced Large Dynamic and Permanent Deformations of Simple Structures, 56–66 (Feb.).
CONWAY, H. D.—The Contact Problem in Solid-ink Printing, 15–21 (Jan.).
CONWAY, H. D.—Moiré Study of Anticlastic Deformations of Strips with Tapered Edges, 168–175 (Apr.).
CRAWFORD, W. A.—High-temperature Strain Gages for Use in Sodium Environments, 525–531 (Dec.).

DALLY, JAMES W.—Data Analysis in Dynamic Photoelasticity, 332–338 (Aug.).
DAVIDS, N.—The Moiré Method for the Study of Explosions, 202–210 (May).
DAY, E. E.—A Laser Extensometer for Measuring Strain at Incandescent Temperatures, 485–489 (Nov.).
DEL RIO, C. J.—Stresses in Square Slabs, with Different Edge Geometries, when Bonded on One Face to a Rigid Plate and Shrunk, 481–484 (Nov.).
DEVRIES, K. L.—Properties of Rocks Tested in One-dimensional Compression, 426–433 (Oct.).

DODDINGTON, C. W.—Effect of Photographic-film Nonlinearities on the Processing of Moiré-fringe Data, 398–402 (Sept.).
DONAT, R. C.—Random-load Fatigue Tests on a Fail-safe Structural Model, 409–418 (Oct.).
DUFFEY, H. J.—Finite Rotation and Strain Measurement Using the Moiré Technique, 537–540 (Dec.).
DURELLI, A. J.—On the Definitions of Strain and Their Use in Large-strain Analysis, 279–280 (June).
DURELLI, A. J.—Experimental Stress Analysis of Loaded Boundaries in Two-dimensional Second-boundary Value Problems, 381–385 (Sept.).
DURELLI, A. J.—Moiré Fringes as Parametric Curves, 97–104 (Mar.).
DURELLI, A. J.—A Moiré Method for Measuring Plate Curvature, 201 (May).
DURELLI, A. J.—Stresses in Square Slabs, with Different Edge Geometries, when Bonded on One Face to a Rigid Plate and Shrunk, 481–484 (Nov.).

ELLIS, R. W.—Thin-plate Analysis and Experimental Evaluation of Couple-stress Effects, 381–385 (Sept.).
ENGSTROM, W. L.—Transient Analysis in a Fracturing Magnesium Plate, 434–440 (Oct.).
ERDOGAN, F.—Displacement Field Around a Circular Hole in a Viscoelastic Plate, 248–255 (June).

FANGMAN, C. N.—High-speed-turbocharger Blade-vibration Measurement, 19A–21A (Jan.).
FARNHAM, K. A.—Moiré Study of Anticlastic Deformations of Strips with Tapered Edges, 168–175 (Apr.).
FAULKNER, M. G.—Bending Behavior of a Rectangular Plate with a Bitrapezoidal Cross Section, 392–397 (Sept.).
FERGUSON, C. W.—The Mechanical and Optical Characterization of a Solithane 113 Composition, 183–188 (Apr.).
FISCHER, E. G.—Mathematical Model Analysis for the Dynamic Design of Machinery, 27A–34A (Oct.).
FLYNN, P. D.—A Comparison of Stress-concentration Factors in Hyperbolic and U-shaped Grooves, 272–275 (June).
FOWLKES, CHARLESS W.—Two Photoviscoelasticity Experiments Using Analog Data Reduction, 41–46 (Jan.).
FREUDENTHAL, A. M.—Effects of Mean Pressure on the Behavior of a Filled Elastomer, 339–345 (Aug.).
FRISCH, J.—Strain Measurements in Tubes During Rapid Transient Heating, 353–358 (Aug.).

GIBBS, JOSEPH P.—Two Types of High-temperature Weldable Strain Gages: Ni-Cr Half-bridge Filaments and Pt-W Half-bridge Filaments, 19A–26A (Aug.).
GILES, W. B.—Spectral Analysis of Pump-cavitation Noise, 19A–29A (Sept.).
GILLICH, W.—The Moiré Method for the Study of Explosions, 202–210 (May).
GURLAND, J. E.—Corneal Studies by Photoelasticity, 419–425 (Oct.).

HARRIS, D. O.—Transient Analysis in a Fracturing Magnesium Plate, 434–440 (Oct.).
HASHIMOTO, S.—On Some Differences between Dynamic and Static-stress Distributions, 91–96 (Feb.).
HAVARD, DAVID G.—Photographic Display of Stress Directions in Plane Photoelasticity, 407–408 (Sept.).
HAWLEY, R. H.—A Grain-boundary Model for Polycrystals and Sintered Carbides, 242–247 (June).
HEIFETZ, J. H.—Measurements of Stress-concentration Factors in the External Fillets of a Cylindrical Pressure Vessel, 518–524 (Dec.).
HEISE, ULRICH—A Moiré Method for Measuring Plate Curvature, 47–48 (Jan.).
HELLER, R. A.—Determination of the Complex Shear Modulus of a Filled Elastomer from a Vibrating Sandwich Beam, 110–116 (Mar.).
HELLER, R. A.—Effects of Mean Pressure on the Behavior of a Filled Elastomer, 339–345 (Aug.).
HELLER, R. A.—Random-load Fatigue Tests on a Fail-safe Structural Model, 409–418 (Oct.).
HERTZ, P. B.—Auto-aerodynamic Drag-force Analysis, 19A–22A (Mar.).
HETTCHE, L. R.—Edge Impact of an Elastic-Plastic Semi-infinite Plate, 302–308 (July).
HOFF, N. J.—Experimental Studies of the Buckling of Complete Spherical Shells, 281–288 (July).
HOHENBERG, RUDOLPH—Detection and Study of Compressor-blade Vibration, 19A–24A (June).
HOVANESIAN, J. D.—Similarity in Thermoelasticity, 82–84 (Feb.).
HU, L. W.—Radiation Effects on Creep Rupture and Fatigue Strength of Pure Aluminum 193–201 (May).

ISHIHARA, T.—Chebyshev Polynomial Curve-fitting Technique for Strain-gage Applications, 276–278 (June).
IVES, K. D.—High-temperature Strain Gages for Use in Sodium Environments, 525–531 (Dec.).

JACOBS, ROBERT, G.—Design and Instrumentation of Glass-filament-wound Interlaminar-shear Specimen, 176–182 (Apr.).
JAMES, L. A.—Plastic-strain Distribution at the Root of a Sharp Notch, 386–391 (Sept.).
JOHNSON, A. E.—Experimental Buckling of Internal Integral Ring-stiffened Cylinders, 145–153 (Apr.).

KARNIE, A. J.—A Laser Extensometer for Measuring Strain at Incandescent Temperatures, 485–489 (Nov.).
KARNOPP, D.—Dynamic-stress Measurement on the Crankshaft of an Operating Diesel Engine, 359–360 (Aug.).
KAWATA, K.—On Some Differences between Dynamic and Static-stress Distributions, 91–96 (Feb.).
KIMZEY, J. R.—Thickness-variation Analog for Nonhomogeneous Plane-elasticity Problems, 403–406 (Sept.).
KITAGAWA, HIDEO—Invariability, Hesitation or Restoration of Damage in Wet–Dry Fatigue Process, 28–35 (Jan.).
KOBAYASHI, A. S.—Transient Analysis in a Fracturing Magnesium Plate, 434–440 (Oct.).
KOWALSKI, H. C.—Similarity in Thermoelasticity, 82–84 (Feb.).

LIEBOWITZ, H.—Stress Concentrations Due to Sharp Notches, 513–517 (Dec.).
LINCOLN, J. W.—Experimental and Theoretical Determination of Frequencies of Elastic Toroids, 211–217 (May).
LINDHOLM, U. S.—A Dynamic Biaxial Testing Machine, 1–7 (Jan.).
LU, L. W.—Techniques for Testing Structures Permitted to Sway, 321–331 (Aug.).
LYON, ROBERT L.—Small-mechanism Stress Analysis, 19A–23A (May).

MASRI, SAMI F.—Electric-analog Studies of Impact Dampers, 49–55 (Feb.).
MASSEY, CAMPBELL—A Solution for the Lateral Stability of Beams Using an Electrical Analog, 124–126 (Mar.).
MAXWELL, R. W.—Stress-fit Applications to Experimental Shell Analyses, 36–40 (Jan.).
MCCORMICK, F. J.—Thickness-variation Analog for Nonhomogeneous Plane-elasticity Problems, 403–406 (Sept.).
MCKINLEY, J. W.—Chebyshev Polynomial Curve-fitting Technique for Strain-gage Applications, 276–278 (June).
MELTON, R. B., JR.—Dynamic-stress Measurement on the Crankshaft of an Operating Diesel Engine, 359–360 (Aug.).
MESMER, G. K.—Finite Rotation and Strain Measurement Using the Moiré Technique, 537–540 (Dec.).
MEYER, M. L.—A Simple Estimate for the Effect of Cross Sensitivity on Evaluated Strain-gage Measurements, 476–480 (Nov.).
MICHKY, G. L.—Thermal-fatigue Tests of Restrained Combustor-cooling Tubes, 256–264 (June).
MIDGLEY, W. R.—Experimental Buckling of Internal Integral Ring-stiffened Cylinders, 145–153 (Apr.).
MILLER, C.—Spectral Analysis of Pump-cavitation Noise, 19A–29A (Sept.).
MILLIGAN, R. VINCENT—The Gross Hydrostatic-pressure Effect as Related to Foil and Wire Strain Gages, 67–73 (Feb.).
MORRIS, J. E.—Strain Measurements in Tubes During Rapid Transient Heating, 353–358 (Aug.).

NEUBERT, V. H.—Shock Response of a Preloaded Connection, 75–81 (Feb.).
NICKOLA, W. E.—Moiré Study of Anticlastic Deformations of Strips with Tapered Edges, 168–175 (Apr.).
NICHOLAS, T.—Determination of the Complex Shear Modulus of a Filled Elastomer from a Vibrating Sandwich Beam, 110–116 (Mar.).

NOGUCHI, Y.—An Analytical Determination of Speed Factor in Gear Designs, 218–223 (May).
NORRIS, DOUGLAS M., JR.—Propagation of a Stress Pulse in a Viscoelastic Rod, 297–301 (July).

OSGERBY, C.—Application of the Moiré Method for Use with Cylindrical Surfaces, 313–320 (July).

PAPIRNO, R.—A Multilayer-reflection Technique for Three-dimensional Photoelastic Studies of Perforated Plates in Bending, 361–371 (Sept.).
PARKS, V. J.—On the Definitions of Strain and Their Use in Large-strain Analysis, 279–280 (June).
PARKS, V. J.—Experimental Stress Analysis of Loaded Boundaries in Two-dimensional Second-boundary Value Problems, 381–385 (Sept.).
PARKS, V. J.—Moiré Fringes as Parametric Curves, 97–104 (Mar.).
PARKS, V. J.—A Moiré Method for Measuring Plate Curvature 201 (May).
PARKS, V. J.—Stresses in Square Slabs, with Different Edge Geometries, when Bonded on One Face to a Rigid Plate and Shrunk, 481–484 (Nov.).
PARR, A. A.—Mathematical Model Analysis for the Dynamic Design of Machinery, 27A–34A (Oct.).
PERRY, C. C.—Manual—Chapter VII—Statistical Treatment of Experimental Data, 19A–25A (Apr.).
POETH, D. F.—Shock Response of a Preloaded Connection, 75–81 (Feb.).
POLONIS, D. H.—Plastic-strain Distribution at the Root of a Sharp Notch, 386–391 (Sept.).
POST, D.—Corneal Studies by Photoelasticity, 419–425 (Oct.).
POST, DANIEL—The Generic Nature of the Absolute-retardation Method of Photoelasticity, 233–241 (June).
POST, DANIEL—Sharpening and Multiplication of Moiré Fringes, 154–159 (Apr.).
POWELL, W. R.—A Grain-boundary Model for Polycrystals and Sintered Carbides, 242–247 (June).
PUST, LADISLAV—Determining the Resonance Frequencies of Forced Vibrations of Turbogenerators with Foundations, 265–271 (June).

RADER, DENNIS—On the Dynamics of Crack Growth in Glass, 160–167 (Apr.).
RASTOGI, R.—High-temperature Strain Gages for Use in Sodium Environments, 525–531 (Dec.).
RATHBUN, F. O.—Spectral Analysis of Pump-cavitation Noise, 19A–29A (Sept.).
RAVILLE, C. E.—Determination of Natural Frequencies of Vibration of a Sandwich Plate, 490–493 (Nov.).
RILEY, WILLIAM F.—Manual—Chapter VI—Moiré Method of Strain Analysis, 19A–24A (Feb.).
ROBERT, ANDRE J.—New Methods in Photoelasticity, 224–232 (May).
ROLL, A. A.—A Comparison of Stress-concentration Factors in Hyperbolic and U-shaped Grooves, 272–275 (June).

SACHS, HERBERT K.—Criteria of Design for Progressive Torsion-bar Springs, 105–109 (Mar.).
SAMPSON, R. C.—The Grid-shift Technique for Moiré Analysis of Strain in Solid Propellants, 449–457 (Nov.).
SANFORD, R. J.—Stress Concentrations Due to Sharp Notches, 513–517 (Dec.).
SCHAFFER, R. R.—The Contact Problem in Solid-ink Printing, 15–21 (Jan.).
SCIAMMARELLA, C. A.—Digital-filtering Techniques Applied to the Interpolation of Moiré-fringe Data, 468–475 (Nov.).
SCIAMMARELLA, C. A.—Techniques of Fringe Interpolation in Moiré Patterns, 19A–26A (Nov.).
SCIAMMARELLA, C. A.—Effect of Photographic-film Nonlinearities on the Processing of Moiré-fringe Data, 398–402 (Sept.).
SEMENIUK, A.—Stability of Rectangular Plates with Cambered Bitrapezoidal Cross Sections, 309–312 (July).
SENDELBECK, R. L.—Experimental Studies of the Buckling of Complete Spherical Shells, 281–288 (July).
SHAMMAMY, M. R.—Incremental Versus Total-strain Theories for Proportionate and Nonproportionate Loading of Torsion–Tension Members, 497–505 (Dec.).
SHIMAMURA, S.—An Analytical Determination of Speed Factor in Gear Designs, 218–223 (May).
SIDEBOTTOM, O. M.—Incremental Versus Total-strain Theories for Proportionate and Nonproportionate Loading of Torsion–Tension Members, 497–505 (Dec.).
SINGER, J.—Buckling of Unstiffened Conical Shells under Combined Loading, 458–467 (Nov.).
SLOT, THOMAS—On the Accuracy of Two-dimensional Photoelastic Experiments in which Uniform Edge Loading Is Obtained by the Inflatable-tubing Technique, 189–192 (Apr.).
SMITH, C. W.—Thin-plate Analysis and Experimental Evaluation of Couple-stress Effects, 381–385 (Sept.).
SMITH, J. L.—Properties of Rocks Tested in One-dimensional Compression, 426–433 (Oct.).
STACEY, W. C.—Properties of Rocks Tested in One-dimensional Compression, 426–433 (Oct.).
STOLL, R. D.—Effects of Mean Pressure on the Behavior of a Filled Elastomer, 339–345 (Aug.).
STURGEON, D. L.—Digital-filtering Techniques Applied to the Interpolation of Moiré-fringe Data, 468–475 (Nov.).
STURGEON, DONALD L. G.—Analysis and Synthesis of a Moiré Photo–Optical System, 346–352 (Aug.).
SUH, NAM P.—Stress-wave Propagation in Truncated Cones Against a "Rigid" Wall, 541–544 (Dec.).

TAGGART, R.—Plastic-strain Distribution at the Root of a Sharp Notch, 386–391 (Sept.).
TANG, C.—Analysis of Axisymmetric Shells Using Photoelastic Foundation Models, 494–496 (Nov.).
THEOCARIS, P. S.—The Moiré Method for the Study of Explosions, 202–210 (May).
THEOCARIS, PERICLES S.—Moiré Topography of Curved Surfaces, 289–296 (July).
TROKE, ROBERT W.—Flat vs. Stacked Rosettes, 24A–28A (May).

UENG, C. E. S.—Determination of Natural Frequencies of Vibration of a Sandwich Plate, 490–493 (Nov.).
UKRAINETZ, P. R.—Auto-aerodynamic Drag-force Analysis, 19A–22A (Mar.).

VANDERVELDT, H.—Stress Concentrations Due to Sharp Notches, 513–517 (Dec.).
VICENTINI, VITTORIO—Stress-concentration Factors for Superposed Notches, 117–123 (Mar.).
VOLTERRA, E.—Experimental and Theoretical Determination of Frequencies of Elastic Toroids, 211–217 (May).

WACHS, M. H.—Displacement Field Around a Circular Hole in a Viscoelastic Plate, 248–255 (June).
WELLER, T.—Buckling of Unstiffened Conical Shells under Combined Loading, 458–467 (Nov.).
WHITNEY, JAMES M.—Experimental Determination of Shear Modulus of Laminated Fiber-reinforced Composites, 447–448 (Oct.).
WILLIAMS, M. L.—The Mechanical and Optical Characterization of a Solithane 113 Composition, 183–188 (Apr.).
WITMER, E. A.—Experimental and Theoretical Studies of Explosive-induced Large Dynamic and Permanent Deformations of Simple Structures, 56–66 (Feb.).
WITT, F. J.—Stress-fit Applications to Experimental Shell Analyses, 36–40 (Jan.).
WOOD, D. E.—Spectarl Analysis of Pump-cavitation Noise, 19A–29A (Sept.).
WOOD, W. W.—Experimental Mechanics at Velocity Extremes—Very High Strain Rates, 441–446 (Oct.).

YARIMCI, E.—Techniques for Testing Structures Permitted to Sway, 321–331 (Aug.).
YEAKLEY, L. M.—A Dynamic Biaxial Testing Machine, 1–7 (Jan.).
YOUNG, R. F.—Applications of Experimental Mechanics to Plant Fabricating-equipment Problems, 19A–25A (Dec.).
YURA, J. A.—Techniques for Testing Structures Permitted to Sway, 321–331 (Aug.).

ZAGIEBOYLO, W.—Shock-wave Interaction with Air-supported Structures, 532–536 (Dec.).
ZAMRIK, S. Y.—Radiation Effects on Creep Rupture and Fatigue Strength of Pure Aluminum, 193–201 (May).
ZANDMAN, FELIX—The Transfer-grid Method, a Practical Moiré Stress-analysis Tool, 19A–22A (July).
ZASTROW, V. A.—High-speed-turbocharger Blade-vibration Measurement, 19A–21A (Jan.).